

Test Report

Report no : VI-R2021286S-1A(ENG)
Date : 2021-08-11

Sample Number : VI-2021286S-1
Client Name : TIMELESS ETERNAL PTE LTD
Client Address : 235 Jalan Besar,#04-01,Singapore 208909
Sample Receiving Date : 2021.06.29
Testing Period : 2021.07.28 – 08.03
Sample Name : Timeless Forever NMN PURE9000
Sample Condition : Sample was received and stored at ambient temperature

Test Requested

Enhancing Blood Circulation Efficacy Test:
Zebrafish Embryos Blood Flow Speed Enhancing Rate Test



General Comments:

1. Test method was designed referring to OECD TG 236.
2. Scientific basis: BMC Biotechnology. 2009, 9:11; PLOSone. 2012, 7(8): e441018; MDPI Inventions. 2019, 4, 65.
3. Sample was pretreated according to our in-house method VI_SOP_002 as functional food products before test.

Test Results: Please refer to next page

Approved signatory:




Dr. Xueping Chen

Chief Technology Officer, UK & EU Registered Toxicologist, Chartered Biologist

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Date : 2021-08-11

Test Results:

Category: Functional food

Sample Description		Timeless Forever NMN PURE9000
Sample ID		VI-2021232S-1
Test	Concentration(g/L)	Result
Blood flow speed enhancing rate in zebrafish embryos ^(1, 2)	0.01	32% ($p = 0.0055$)
Enhancing Blood Circulation Efficacy ⁽³⁾	Significant	

Remarks:

1. Blood flow speed enhancing rate in zebrafish embryo = [(the blood flow speed in zebrafish embryos treated with testing sample - the blood flow speed in normal zebrafish embryos) $\times 100$ / the blood flow speed in normal zebrafish embryos] %.
2. p value is obtained from the T-test between the blood flow speed in zebrafish embryos treated with testing sample and the blood flow speed in normal zebrafish embryos. Generally, $p < 0.05$ has statistically significant difference.
3. Based on the blood flow speed enhancing rate in zebrafish embryos, the statistical difference (p value) of the enhancing rate and the enhancing blood circulation efficacy database of the same type of product, the enhancing blood circulation efficacy of a testing sample is determined as Significant (enhancing rate is positive value and $p < 0.05$) or Insignificant (enhancing rate is negative value or $p \geq 0.05$).
4. Refer to Appendix 1 for representative photos of enhancing blood circulation efficacy test results.
5. The test results relate only to the submitted test item with the sample number and receiving date specified on the previous page.

-- End of Test Report --

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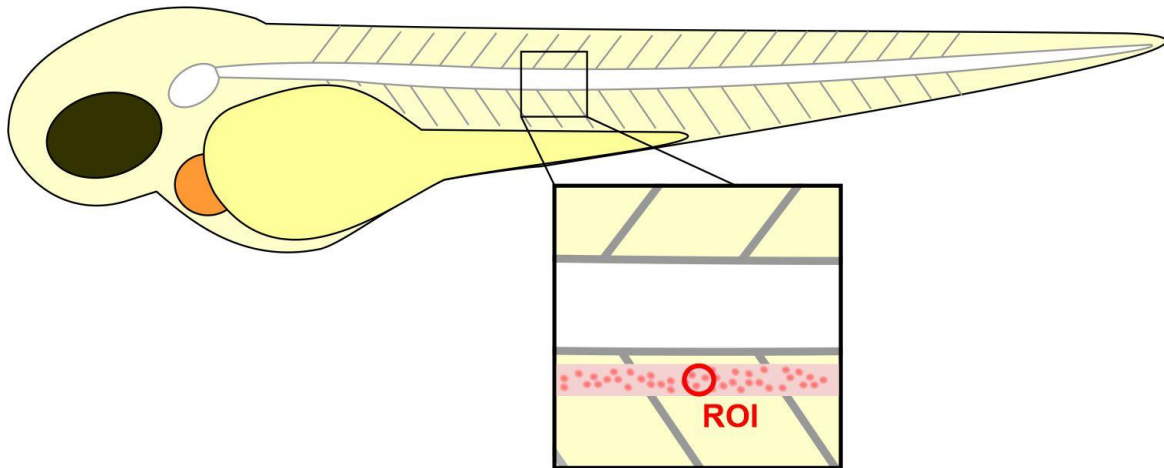
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Appendix 1

Image of Zebrafish Embryo Blood Flow Speed Measurement Location



* The measurement position is one section of the vein

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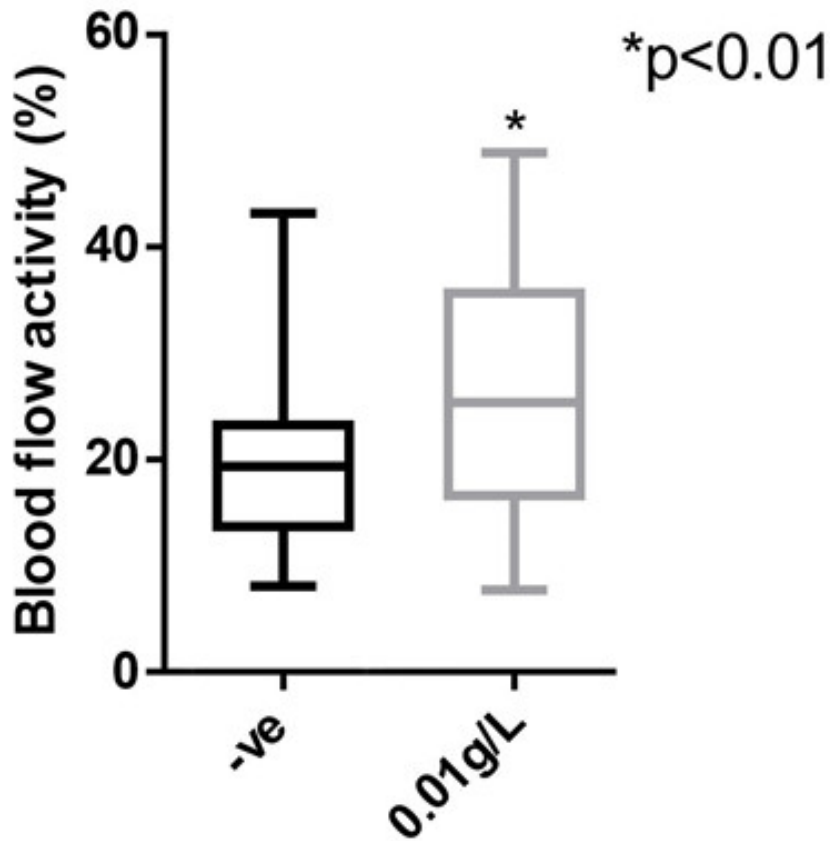
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Appendix 2

Box Plot of Blood Flow Speed in Zebrafish Embryo



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